

GP-303269

**REMARKS**

Claims 1-27 were pending in the present Application.

Applicants appreciate the indication that Claims 26 and 27 stand allowed. Claims 1, 9, and 18, leaving Claims 1-27 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments. For example, support for the amendments to Claims 1, 9, and 18 can be found at least in Figure 1 and throughout the specification.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

**First Claim Rejection Under 35 U.S.C. § 102(b)**

Claims 1, 2, 4, and 6 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by US Patent No. 6,390,253 to Oliver (hereinafter "Oliver"). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987).

Oliver fails to anticipate Claim 1 because the cited reference fails to disclose an impact energy absorbing system comprising, *inter alia*, the feature of a support member that is in sliding engagement with the seal and the magnetorheological fluid of the control structure, wherein the magnetorheological fluid is not displaced by the support member to effect the sliding engagement not displaced by the support member. In Oliver, in order for the support member (66) to move, the magnetorheological fluid must be displaced to accommodate the sliding engagement thereof. This is clearly shown in Oliver's Figure 2 showing that the fluid must flow from one compartment to another compartment for the piston (66, 64) to move within the sleeve (58).

Accordingly, Oliver does not anticipate Claim 1. Given that Claims 2, 4, and 6 depend from Claim 1, these claims are also not anticipated by Oliver for at least the same reasons. Withdrawal of the rejection is hereby requested.

GP-303269

Second Claim Rejection Under 35 U.S.C. § 102(b)

Claims 9, 10, 12, and 14-16 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by US Patent No. 5,947,238 to Jolly et al (hereinafter "Jolly"). Applicants respectfully traverse this rejection.

Claim 9 is directed to an impact energy absorbing system comprising a control structure comprising a sleeve, a seal at each end of the sleeve, a magnetorheological fluid, and a permanent magnet in proximity to the magnetorheological fluid to define a fixed yield stress; and an impact surface fixedly attached to a support member, wherein the support member is slidably disposed against the seal and the magnetorheological fluid, wherein the magnetorheological fluid is not displaced by the support member to effect sliding of the support member.

Like Oliver above, Jolly also fails to disclose Applicants claimed feature, "wherein the magnetorheological fluid is not displaced by the support member to effect sliding of the support member". Jolly's device requires displacement of the fluid in order to function and effect movement of the piston.

In view of the foregoing, Applicants respectfully request withdrawal of the rejection of Claims 9, 10, 12, and 14-16.

Third Claim Rejection Under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 6, 8-10, 12, 14, 16-19, 21, 22, and 24 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by US Patent No. 6,427,813 to Carlson (hereinafter "Carlson '813"). Applicants respectfully traverse this rejection.

Independent Claims 1, 9, and 18 have in common the feature, "wherein the magnetorheological fluid is not displaced by the support member to effect sliding of the support member."

Like the Oliver and Jolly references cited above, Carlson '813 also teaches displacement of the magnetorheological fluid to effect movement of the support member

GP-303269

within the sleeve. As such, Carlson fails to anticipate Claims 1, 2, 4, 6, 8-10, 12, 14, 16-19, 21, and 22 for at least this reason.

Regarding Claim 24, Carlson '813 fails to disclose at least "a plurality of plates disposed in the housing" and, as such, cannot anticipate Applicants' independent Claim 24.

Accordingly, Applicants respectfully request withdrawal of the rejection of Claims 1, 2, 4, 6, 8-10, 12, 14, 16-19, 21, 22, and 24.

Fourth Claim Rejection Under 35 U.S.C. § 102(b)

Claim 24 stands rejected under 35 U.S.C. § 102(b) as allegedly anticipated by US Patent No. 5,492,312 to Carlson (hereinafter "Carlson '312"). Applicants respectfully traverse this rejection.

Carlson '312 fails to anticipate Claim 24 because Carlson '312 fails to disclose at least "a plurality of plates disposed in the housing, wherein each plate is substantially parallel to an adjacent plate, and wherein the plurality of plates are alternatingly attached to the support member and a framing member of the housing to define a space between adjacent plates".

Reference numeral 38 is characterized as a baffle plate. Reference numeral 42 is characterized as "pair of cup shaped opposite facing members" that make up the magnetic core receiving therebetween a bobbin wound coil. Because of this, reference numeral 38 and 42 cannot parallel to one another. As such, Carlson '312 fails to disclose Applicants claimed feature of a "plurality of plates [that] are alternatingly attached to the support member and a framing member of the housing".

Accordingly, Applicants respectfully request withdrawal of the rejection of Claim 24 for at least these reasons.

GP-303269

First Claim Rejection Under 35 U.S.C. § 103(a)

Claims 5, 7, 13, 15, and 20 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Carlson '813 in view of US Patent No. 5,525,249 to Kordonsky et al (hereinafter "Kordonsky"). Applicants respectfully traverse this rejection.

Applicants assert a *prima facie* case of obviousness has not been established against Applicants' Claims 5, 7, 13, 15, and 20. The cited references, individually or in combination, teach and suggest *displacement* of the magnetorheological fluid in order to effect sliding engagement. This is markedly different from Applicants claimed impact energy absorbing systems and processes, which have in common, *inter alia*, the feature of "wherein the magnetorheological fluid is not displaced by the support member to effect the sliding engagement".

Accordingly, Applicants respectfully request withdrawal of the rejection to Claims 5, 7, 13, 15, and 20.

Second Claim Rejection Under 35 U.S.C. §103(a)

Claim 25 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Carlson '312 in view of Kordonsky. Applicants respectfully traverse this rejection.

Claim 25 depends from Claim 24, and as such, includes all of the limitations of the base claim. As such, the device of Claim 25 includes the claim limitation of a "plurality of plates disposed in the housing, wherein each plate is substantially parallel to an adjacent plate, and wherein the plurality of plates are alternatingly attached to the support member and a framing member of the housing to define a space between adjacent plates". The cited references, individually or in combination, fail to teach or suggest at least this feature.

Carlson '312 is directed to non-substantially parallel adjacent plates and non-alternatingly attached plates. Kordonsky fails to compensate for the deficiencies of Carlson '312. Kordonsky merely discloses magnetorheological fluid compositions. There is no

GP-303269

disclosure or suggestion of devices. Because of this, the cited references fail to teach or suggest plurality of plates disposed in the housing, wherein each plate is substantially parallel to an adjacent plate, and wherein the plurality of plates are alternately attached to the support member and a framing member of the housing to define a space between adjacent plates.

Accordingly, Applicants respectfully request withdrawal of the rejection to Claim 25.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP

By   
Peter R. Hagarty  
Registration No. 42,618

Date: November 9, 2004  
Telephone (860) 286-2929  
Facsimile (860) 286-0115  
Customer No.: 23413